Claims:

1. A polynucleotide having the sequence as depicted in the sequence selected from the group consisting of SEQ ID No.2,SEQ ID No.5, SEQ ID No.8, SEQ ID NO.10, SEQ ID No. 13, SEQ ID No. 15, SEQ ID No. 17, or SEQ ID No. 20, homologs thereof and functional fragments thereof.

2. The polynucleotide of claim 1 which is the gene CaNL256, homologs thereof and functional fragments thereof.

3. The polynucleotide of claim 1 which is the gene CaBR102, homologs thereof and functional fragments thereof.

4. The polynucleotide of claim 1 which is the gene CaIR012, homologs thereof and functional fragments thereof.

5. The polynucleotide of claim 1 which is the gene CaMR212, homologs thereof and functional fragments thereof.

6. The polynucleotide of claim 1 which is the gene CaDR325, homologs thereof and functional fragments thereof.

7. The polynucleotide of claim 1 which is the gene CaOR110, homologs thereof and functional fragments thereof.

8. The polynucleotide of claim 1 which is the gene CaJL039, homologs thereof and functional fragments thereof.

9. A protein encoded by the polynucleotide according to claim 2 or a functional polypeptide fragment thereof.

10 A protein encoded by the polynucleotide according to claim 3 or a functional polypeptide fragment thereof.

11. A protein encoded by the polynucleotide according to claim 4 or a functional polypeptide fragment thereof.

12. A protein encoded by the polynucleotide according to claim 5 or a functional polypeptide fragment thereof.

13. A protein encoded by the polynucleotide according to claim 6 or a functional polypeptide fragment thereof.

14. A protein encoded by the polynucleotide according to claim 7 or a functional polypeptide fragment thereof.

15. A protein encoded by the polynucleotide according to claim 8 or a functional polypeptide fragment thereof.

16. A plasmid deposited at the CNCM with the accession number I-2065.

17. A plasmid deposited at the CNCM with the accession number I-2063.

18. A plasmid deposited at the DSMZ with the accession number DSM 12977.

19. A plasmid deposited at the DSMZ with the accession number DSM 12976.

20. A plasmid deposited at the DSMZ with the accession number DSM 12978.

21. A plasmid deposited at the DSMZ with the accession number DSM 12979.

22. An antibody directed against the protein of claim 9 or a functional polypeptide fragment thereof.

23.An antibody directed against the protein of claim 10 or a functional polypeptide fragment thereof.

24. An antibody directed against the protein of claim 11 or a functional polypeptide fragment thereof.

25. An antibody directed against the protein of claim 12 or a functional polypeptide fragment thereof.

26. An antibody directed against the protein of claim 13 or a functional polypeptide fragment thereof.

27. An antibody directed against the protein of claim 14 or a functional polypeptide fragment thereof.

28. An antibody directed against the protein of claim 15 or a functional polypeptide fragment thereof.

29. A polypeptide obtainable by the process comprising the following steps:

(i) Selecting an essential gene from Saccharomyces cerevisiae

(ii) Comparing the sequence of said gene with Candida Albicans genome sequences;

(iii) Deducing homologous oligonucleotides regions

(iv) PCR amplifying the thus-obtained oligonucleotides;

(v) Using the amplimers of step (iv) for detecting the complete gene of interest; and homologs thereof and functional fragments thereof.

30. The polynucleotide of claim 29, in which step (v) is comprised of the step of using the amplimers of step (iv) as a probe for detecting the complete gene of interest from a Candida albicans genomic library.

31. The polynucleotide of claim 29, in which step (v) is comprised of the step of using the amplimers of step (iv) as a probe for detecting the complete gene of interest from a Candida albicans cDNA library.

32. The polyonucleotide of claim 29, in which step (v) is comprised of the step of 3' and 5' extension of the amplimer using a PCR method.

33. A method for the screening of antimycotic substances wherein an essential gene from mycetes or a functionally similar gene from another pathogenic mycete, or the corresponding encoded protein, is used as target and wherein the essential gene is selected from the group consisting of CaNL256, CaBR102, CaMR212, CaDR325, Ca OR110, CaJL039, homologs thereof and functional fragments thereof.

34. The method of claim 33 wherein mycete cells which express the essential gene, or a functionally similar mycete gene, to a different level are incubated with the substance to be tested and the growth inhibiting effect of the substance is determined.

35. The method of claim 33 wherein said target gene or the corresponding target encoded protein is contacted in vitro with the substance to be tested and the effect of the substance of the target is determined.

36. The method according to claim 33 wherein the screened substances partially or totally inhibit the functional expression of the essential genes or the functional activity of the encoded proteins.

37. The method according to claim 33 wherein the screened substances partially or totally inhibit the activity of dihydropneopterin aldolase (DHNA).

38. The method according to claim 33 wherein the screened substances partially or totally inhibit the activity of dihydropteroate synthase (DHPS).

39. The method according to claim 33 wherein the screened substances partially or totally inhibit the activity of 7, 8-dihydro-6-hydroxymethylpterin-pyrophoshokinase (HPPK).

40. The method according to claim 33 wherein the mycete species are selected from the group comprising Basidiomycetes, Ascomycetes and Hyphomycetes.

41. The method according to claim 33 wherein said functionally similar genes are essential genes for Candida Spp, or Aspergillus Spp.

42. The method according to claim 41, wherein said functionally similar genes are essential genes from Candida albicans, or Aspergillus fumigatus.

43. A kit for diagnosis of fungal infections comprising a gene selected from the group consisting of CaOR110, CaMR212, CaNL256, CaBR102, CaIR012, CaDR325 and CaJL039, a functionally similar gene thereof, a functional fragment thereof, the corresponding encoded protein or a functional polypeptidic fragment thereof, or an antibody directed against the protein encoded by the gene selected from the group consisting of CaOR110, CaMR212, CaNL256, CaBR102, CaIR012, CaDR325 and CaJL039, or by a functionally similar gene, or a polypeptidic fragment thereof.